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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,055	03/24/2005	Michael Harris	124-1111	1768

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NIXON & VANDERHYE, PC  
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ARLINGTON, VA 22203

EXAMINER
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BRAINARD, TIMOTHY A

ART UNIT	PAPER NUMBER
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3662

MAIL DATE	DELIVERY MODE
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05/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/529,055

Applicant(s)

HARRIS ET AL.

Examiner

Timothy A. Brainard

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets et al (US 5949531) in view of Zincone et al (US 4652122). Ehbets teaches a (claim 1) bistatic radar device comprising a transmit channel for forming a focused transmit beam, a receive channel for forming a variable focus receive beam, where the device is arranged such that the focus of the transmit beam and the focus of the receive beam fall on a common axis (fig 1 and col 5, lines 3-15), (claim 2) the transmit channel configured to form a focused transmit beam and having one lens (fig 1 and col 5, lines 3-15), (claim 6) and a receive channel comprising a second optical arrangement configured to form the focused receive beam and having at least one lens (col 5, lines 1-18). Ehbets does not teach a variable focus transmit beam. Zincone et al teaches a variable focus transmit beam. It would have been obvious to modify Ehbets to include a variable focus transmit beam because it would allow an operator to gather information from more than one point. It is expected that the channels vary focus by movement along a movement axis and the movement axes defined as an acute angle are not parallel.

Claim 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets et al in view of Zincone as applied to claim 2 above, and further in view of Neukermans et al (US 2002/0164110). Neukermans teaches a (claim 3) laser radiation passing to the optical arrangement via an optical fiber, (claim 4) the transmit beam adjustable by variation of relative position of the first optical arrangement of the first optical arrangement, and (claim 5) the exit aperture linearly translatable with respect to the first optical arrangement (paragraph 9). It would have been obvious to modify Ehbets in view of Zincone to include a laser radiation passing to the optical arrangement via an optical fiber, the transmit beam adjustable by variation of relative position of the first optical arrangement of the first optical arrangement, and the exit aperture linearly translatable with respect to the first optical arrangement because each is one of multiple design changes with no new or unexpected result.

Claim 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets in view of Zincone as applied to claim 6 above, and further in view of Neukermans (US 2002/0164110). Neukermans teaches (claim 7) the second optical arrangement configured to couple received radiation in to a receiving optical fiber (paragraph 9). It would have been obvious to modify Ehbets in view of Zincone to include the second optical arrangement configured to couple received radiation in to a receiving optical fiber because it is one of multiple design choices with no new or unexpected result. Ehbets teaches the focus of the receive beam adjustable by variation of relative position of the second optical arrangement, and the entry aperture linearly translatable with respect to the second optical arrangement (col 5, lines 1-18).

Art Unit: 3662

Neukermans teaches the transmit optical fiber linearly translatable along the optical axis of the first optical arrangement and the entry aperture of the receive optical fiber linearly translatable along an axis arranged at a predetermined angle. It would have been obvious to modify Ehbets in view of Zincone to include the transmit optical fiber linearly translatable along the optical axis of the first optical arrangement and the entry aperture of the receive optical fiber linearly translatable along an axis arranged at a predetermined angle because it is one of multiple design choices with no new or unexpected result.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets in view of Zincone in view of Neukermans as applied to claim 10 above, and further in view of Ortyn et al (US 2002/0093641). Ortyn teaches the predetermined angle calculated from the inverse tangent of the ratio of the separation of transmit channel and receive channel (paragraph 195 and figure 1). It would have been obvious to modify Ehbets in view of Zincone in view of Neukermans to include the predetermined angle calculated from the inverse tangent of the ratio of the separation of transmit channel and receive channel because it is one of multiple design choices with no new or unexpected results.

Claim 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets in view of Zincone as applied to claim 1 above, and further in view of Tocker et al (US 5280332). Tockers teaches (claim 12) a laser device with at least one additional channel (figure 1 item 64 and 64'). It would have been obvious to modify Ehbets in view of Zincone to include a laser device with at least one additional channel because it is

one of multiple design choices with no new or unexpected results. With respect to claim 13, Ehbets teaches the at least one additional receive channel arranged to intersect the focus of the transmit beam within the operable distance range of the device (col 5, lines 1-18).

Claim 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets in view of Zincone as applied to claim 1 above, and further in view of Holton (US 2002/0075472). Holton teaches of the device configured to interact with a soft target or a distributed target (paragraph 3). It would have been obvious to modify Ehbets in view of Zincone to include the device configured to interact with a soft target or a distributed target because it is one of multiple design choices with no new or unexpected results.

Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets in view of Zincone as applied to claim 1 above, and further in view of Evans et al (US 6323941). Evans teaches a transmit beam formed from radiation having a wavelength in the region of 1.55 micrometers (col 10 39-31). It would have been obvious to modify Ehbets in view of Zincone to include a transmit beam formed from radiation having a wavelength in the region of 1.55 micrometers because it is one of multiple design choices with no new or unexpected results.

Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets in view of Zincone as applied to claim 19 above, and further in view of Uomori et al (US 2003/0193658). Uomori teaches an optical lens with a focal length  $F$ , on of said channels is displaced from the other of said channels by a distance  $S$ , and  $\theta$  is defined by the equation  $\tan \theta = S/F$ . I would have been obvious to modify Ehbets in view of

Art Unit: 3662

Zincone to include an optical lens with a focal length  $F$ , on of said channels is displaced from the other of said channels by a distance  $S$ , and  $\theta$  is defined by the equation  $\tan \theta = S/F$  because it is one of multiple design change with no new or unexpected results

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehbets et al (US 5949531) in view of Zincone et al (US 4652122) and Uomori (US 2003/0193658). Ehbets teaches a bistatic radar device comprising a transmit channel for forming a focused transmit beam, a receive channel for forming a variable focus receive beam, where the device is arranged such that the all points of focus of the transmit beam and all points of focus of the receive beam fall on a common axis (fig 1 and col 5, lines 3-15). Ehbets does not teach a variable focus transmit beam. Zincone et al teaches a variable focus transmit beam. It would have been obvious to modify Ehbets to include a variable focus transmit beam because it would allow an operator to gather information from more than one point. It is expected that the channels vary focus by movement along a movement axis and the movement axes defined as an acute angle are not parallel. Uomori teaches an optical lens with a focal length  $F$ , on of said channels is displaced from the other of said channels by a distance  $S$ , and  $\theta$  is defined by the equation  $\tan \theta = S/F$ . It would have been obvious to modify Ehbets to include an optical lens with a focal length  $F$ , on of said channels is displaced from the other of said channels by a distance  $S$ , and  $\theta$  is defined by the equation  $\tan \theta = S/F$  because it is one of multiple design change with no new or unexpected results

***Response to Arguments***

Applicant's arguments with respect to claim 1-16 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy A. Brainard whose telephone number is (571) 272-2132. The examiner can normally be reached on Monday - Friday 8:00 - 5:00.

Art Unit: 3662

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAB

A handwritten signature in black ink, appearing to read "Thomas H. Tarcza".

THOMAS H. TARCZA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600